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09/055,984	04/07/1998	TAE WOON KIM	K-018	4692

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EXAMINER

NGUYEN, TOAN D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 07/02/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/055,984

Applicant(s)

KIM, TAE WOON

Examiner

Toan D Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13, 14, 16, 17, 21-36 and 38-49 is/are rejected.
- 7) ☒ Claim(s) 12, 15, 18-20, 23-26 and 37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 9, 27, 31, 38-41 and 44-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Schneider (U.S. Patent 6,570,871 B1).

For claims 1, 3-5, 38-39 and 41, Schneider discloses internet telephone service using cellular digital vocoder comprising:

a plurality of mobile stations (figure 2, col. 6 lines 33-34);

a plurality of base stations and base station controllers for transferring a signal transmitted from said mobile stations and a signal transmitted to said mobile stations in a predetermined service area (col. 6 lines 33-36);

a mobile switching center for detecting a service option included in the signal transmitted from the base stations and base station controllers and for executing a circuit data service or a packet data service according to the detected service option (figure 2, col. 4 lines 53-56 and col. 6 lines 33-36); and

at least one mobile data network interworking unit for establishing a traffic channel of a mobile data path and a call between a calling party mobile station and a called party mobile station when said mobile switching center performs the circuit data service, wherein first and second data paths are established between the mobile switching center and the least one mobile data network interworking unit (figure 2, col. 7 lines 59-62).

For claims 2 and 31, Schneider discloses wherein said mobile switching center comprises:

a mobile connection control module for detecting the service option included in the signal transmitted from said base station and base station controllers and for generating a switching signal controlling an interface connection (figure 7, col. 13 lines 47-55);

a mobile data path connection control module for controlling the connection to a mobile network data path according to the switching signal of said mobile connection control module (col. 14 lines 26-38);

a public network data path connection control module for controlling the connection to a public network data path according to the output signal of said mobile data network interworking unit (col. 14 lines 22-26); and

a trunk connection control module for transmitting an output signal of said public network data path connection control module (col. 14 lines 26-38) or said mobile network data path connection control module to a public switched telephone network (col. 7 line 65 to col. 8 line 3) or to a second mobile switching center according to the switching signal of said mobile data path control module or said public network data path connection control module (figure 2, col. 7 lines 25-51).

For claim 9, Schneider discloses wherein said mobile data communication system is characterized by a CDMA mobile data communication system (figure 4, col. 11 lines 20-22).

For claims 27 and 44-45, Schneider discloses internet telephone service using cellular digital vocoder comprising:

at least one base station and base station controller, configured to receive and transfer a signal from at least one mobile station and a signal transmitted to the at least one mobile station in a prescribed service area; (col. 6 lines 33-36);

a mobile switching center (MSC) configured to detect a service option included in the signal transmitted from the at least one base station and base station controller and to execute a circuit data service or a packet data service according to the detected service option (figure 2, col. 4 lines 53-56 and col. 6 lines 33-36); and

at least one mobile data network interworking unit coupled to the MSC to establish a traffic channel of a mobile data path and a call between a calling party mobile station and a

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called party mobile station when said mobile switching center performs the circuit data service, wherein first and second data paths are established between the MSC and the least one mobile data network interworking unit (figure 2, col. 7 lines 59-62).

For claims 40 and 46, Schneider discloses wherein said first data path is a mobile data path and said second data path is a public network data path (figure 2).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6-8, 10-11, 13, 16-17, 28-30, 32-36, 42-43 and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (U.S. Patent 6,570,871 B1) in view of Essigmann (U.S. Patent 5,850,391).

For claim 10, Schneider discloses internet telephone service using cellular digital vocoder comprising:

inputting an identification number of a called party mobile station (col. 4 lines 21-27);  
establishing a first call from a calling party mobile station to a mobile data network interworking unit and then establishing a first traffic channel (figure 2, col. 7 lines 25-35);

calling the called party mobile station at the mobile data network interworking unit (col. 7 lines 25-35);

establishing a second call from said called party mobile station to the mobile data network interworking unit when a data response comes from said called party mobile station and

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then establishing a second traffic channel after the mobile data path connection module informs the public network data path connection control module of a normal state of a first data path between a mobile switching center and the mobile data network interworking unit (figure 2, col. 7 lines 25-35);

establishing a call between the mobile switching center and the mobile data network interworking unit through a second data path (col. 7 lines 25-35); and

connecting said first and second traffic channels through at least one modem of the interworking unit to perform circuit data service (col. 7 line 59 to col. 8 line 8).

However, Schneider does not disclose one modem of the interworking unit. In an analogous art, Essigmann discloses one modem of the interworking unit (figure 2, col. 4 line 33). One skilled in the art would have recognized one modem of the interworking unit to use the teachings of Essigmann in the system of Schneider. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the modem of the interworking unit as taught by Essigmann in Schneider's system with the motivation being to provide communicating voice data over radio channel without limitation for mobile subscribers (col. 4 lines 34-35).

For claims 11 and 36, Schneider discloses wherein said first data path is a mobile data path and said second data path is a public network data path (figure 2).

For claims 13 and 17, Schneider discloses wherein said steps for establishing the first call comprises:

deciding a service option included in the signal transmitted from said calling party mobile station (col. 4 lines 53-56); and

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requesting said data network interworking unit to establish a call when said service option is to request a circuit data communication service (figure 2, col. 7 lines 59-62).

For claim 16, Schneider discloses wherein step of said called party mobile station includes the steps of:

transmitting a connection request message from said mobile data network internetworking unit to said mobile switching center (col. 3 lines 25-35);

requesting an incoming connection from said mobile station to said called party mobile station; and calling a mobile terminal of said called party mobile station (col. 4 lines 21-43).

For claim 30, Schneider discloses wherein the communication system comprises a CDMA communication system (figure 4, col. 11 lines 20-22).

For claims 32-34, Schneider discloses internet telephone service using cellular digital vocoder comprising:

a data path connector to couple over at least first and second data paths to a mobile switching center (figure 2, col. 7 lines 59-62);

a main processor to form a traffic channel of a mobile data path between a first mobile terminal and a second mobile terminal when a circuit data service option is detected by the mobile switching center from a base station (figure 8A and B, col. 14 lines 65-67).

However, Schneider do not disclose:

a circuit data processor, coupled to the main processor and configured to analyze a signal transmitted from the first mobile terminal if a protocol between the first mobile terminal and the second mobile terminal is normally executed, and to transmit an identification number from the second terminal to the main processor; and



a switching circuit, configured to selectively switch a connection between the circuit data processor and the data path connector in accordance with a control signal from the main processor, wherein the circuit data processor comprises at least one modem.

In an analogous art, Essigmann discloses:

a circuit data processor, coupled to the main processor and configured to analyze a signal transmitted from the first mobile terminal if a protocol between the first mobile terminal and the second mobile terminal is normally executed, and to transmit an identification number from the second terminal to the main processor (col. 7 line 64 to col. 8 line 3); and

a switching circuit, configured to selectively switch a connection between the circuit data processor and the data path connector in accordance with a control signal from the main processor, wherein the circuit data processor comprises at least one modem (col. 8 lines 15-25).

One skilled in the art would have recognized a circuit data processor to use the teachings of Essigmann in the system of Schneider. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the circuit data processor as taught by Essigmann in Schneider's system with the motivation being to establish a first circuit call connection from the serving MSC to the SIWF telecommunication node 190 (col. 8 lines 1-3).

For claims 6-8, the claims are directed to the same subject matter as in claim 32. Therefore, they are subject to the same rejection.

For claims 28-29, the claims are directed to the same subject matter as in claim 32. Therefore, they are subject to the same rejection.

For claim 35, Schneider discloses internet telephone service using cellular digital vocoder comprising:

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inputting an identification number of a first mobile station (col. 4 lines 21-27);  
establishing a first call from a second mobile station to a said mobile data network interworking unit and then establishing a first traffic channel (figure 2, col. 7 lines 25-35);  
calling the first mobile station at the mobile data network interworking unit (col. 7 lines 25-35);  
establishing a second call from the first mobile station to the mobile data network interworking unit when a data response comes from the first mobile station and then establishing a second traffic channel after a mobile data path connection module informs a public network data path connection control module of a normal state of the first data path (figure 2, col. 7 lines 25-35);  
establishing a call between a mobile switching center and the mobile data network interworking unit through the second data path (col. 7 lines 25-35); and  
connecting the first and second traffic channels through at least one modem of the mobile data network interworking unit. (col. 7 line 59 to col. 8 line 8).

However, Schneider does not disclose one modem of the interworking unit. In an analogous art, Essigmann discloses one modem of the interworking unit (figure 2, col. 4 line 33). One skilled in the art would have recognized one modem of the interworking unit to use the teachings of Essigmann in the system of Schneider. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the modem of the interworking unit as taught by Essigmann in Schneider's system with the motivation being to provide communicating voice data over radio channel without limitation for mobile subscribers (col. 4 lines 34-35).

For claims 42-43, the claims are directed to the same subject matter as in claim 32.

Therefore, they are subject to the same rejection.

For claims 47-48, Schneider discloses wherein the interworking unit further comprises a module for providing circuit service and a module for providing packet based service, and wherein different protocol stacks are used for packet service and circuit service (figure 2, col. 7 lines 25-35 and col. 7 lines 59 to col. 8 line 8).

For claim 49, Schneider discloses wherein the first data path is a mobile data path and the second data path is a public network data path (figure 2).

6. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (U.S. Patent 6,570,871 B1) in view of Essigmann (U.S. Patent 5,850,391) further in view of Csapo (U.S. Patent 5,910,946).

For claims 21 and 22, Schneider discloses internet telephone service using cellular digital vocoder comprising:

- a) inputting an identification number of a called party mobile station (col. 4 lines 21-27);
- b) establishing a first traffic channel after establishing a first call from a calling party mobile station to a first mobile data network interworking unit having at least one modem through a first mobile switching center (figure 2, col. 7 lines 25-35);
- c) calling a called party mobile station controlled by a second mobile switching center from said first mobile data network interworking unit through said public network data path connection control module and said trunk connection control module (col. 7 lines 25-35);
- d) establishing a second traffic channel after a second call from said called party mobile station to a second mobile data network interworking unit having at least one modem is

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established when said called party mobile station responds and said mobile data path connection module informs said public network data path connection control module of a normal state of first data path (col. 7 lines 25-35);

e) establishing a call between said public network data path connection control module and said second mobile data network interworking unit after said mobile data path connection control module informs said public network data path connection control module of the completion of channel establishment when said second traffic channel is completely established (figure 2, col. 7 lines 25-35);

g) connecting said public network data path connection control module with the trunk connection control module (col. 7 lines 25-35).

Schneider does not disclose one modem of the interworking unit. In an analogous art, Essigmann discloses one modem of the interworking unit (figure 2, col. 4 line 33). One skilled in the art would have recognized one modem of the interworking unit to use the teachings of Essigmann in the system of Schneider. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the modem of the interworking unit as taught by Essigmann in Schneider's system with the motivation being to provide communicating voice data over radio channel without limitation for mobile subscribers (col. 4 lines 34-35).

Furthermore, Schneider in view of Essigmann does not disclose:

f) releasing the traffic channel between said mobile connection control module and said public network data path connection control module when the call establishment between the public network data path connection control module and said second mobile data network interworking unit is completed. In an analogous art, Csapo discloses releasing the traffic channel

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between said mobile connection control module and said public network data path connection control module when the call establishment between the public network data path connection control module and said second mobile data network interworking unit is completed (col. 5 lines 44-48). One skilled in the art would have recognized releasing the traffic channel to use the teachings of Csapo in the system of Schneider. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the releasing the traffic channel as taught by Csapo in Schneider's system with the motivation being to provide radio resources for other uses (col. 5 line 46).

***Allowable Subject Matter***

7. Claims 12, 15, 18-20, 23-26 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response To Arguments***

8. Applicant's arguments filed April 17, 2003 have been fully considered, but are moot in view of the new ground(s) of rejection.

***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The examiner can normally be reached on Monday- Friday (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

TN  
T.N.

A handwritten signature in black ink, followed by the date 6/28/07 written below it.